SITE ASSESSMENT REPORT
FOR
WEST ROOSEVELT DRUM SITE
CHICAGO, COOK COUNTY, ILLINOIS
TDD NO.: T05-9501-006
PAN: EIL0856SAA

ecology and environment, inc.
International Specialists in the Environment

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February 17, 1995

Prepared for:
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Emergency and Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604

Prepared by: _____ Date: 2/17/95
for Todd Ramaly, TAT Project Manager

Reviewed by: _____ Date: 2/17/95
M.J. Ripp, TAT QA/Report Manager

Approved by: _____ Date: 2/17/95
Thomas Kouris, TAT Leader

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1. INTRODUCTION

The United States Environmental Protection Agency (U.S. EPA) tasked the Ecology and Environment, Inc., (E & E), Technical Assistance Team (TAT) to perform a site assessment (SA) of the West Roosevelt Drum (WRD) site. The SA was initiated under Technical Direction Document (TDD) No. T05-9501-006. The WRD site is comprised of a warehouse building and loading dock area where drums are stored. The purpose of the SA was to conduct an inspection of the site, evaluate threats to human health and the environment, photodocument on-site conditions, provide verbal briefings to the U.S. EPA On-Scene Coordinator (OSC), and develop a removal action plan with cost estimates. The SA was performed in accordance with the National Oil and Hazardous Substances Contingency Plan (NCP) section 300.415.

2. SITE BACKGROUND

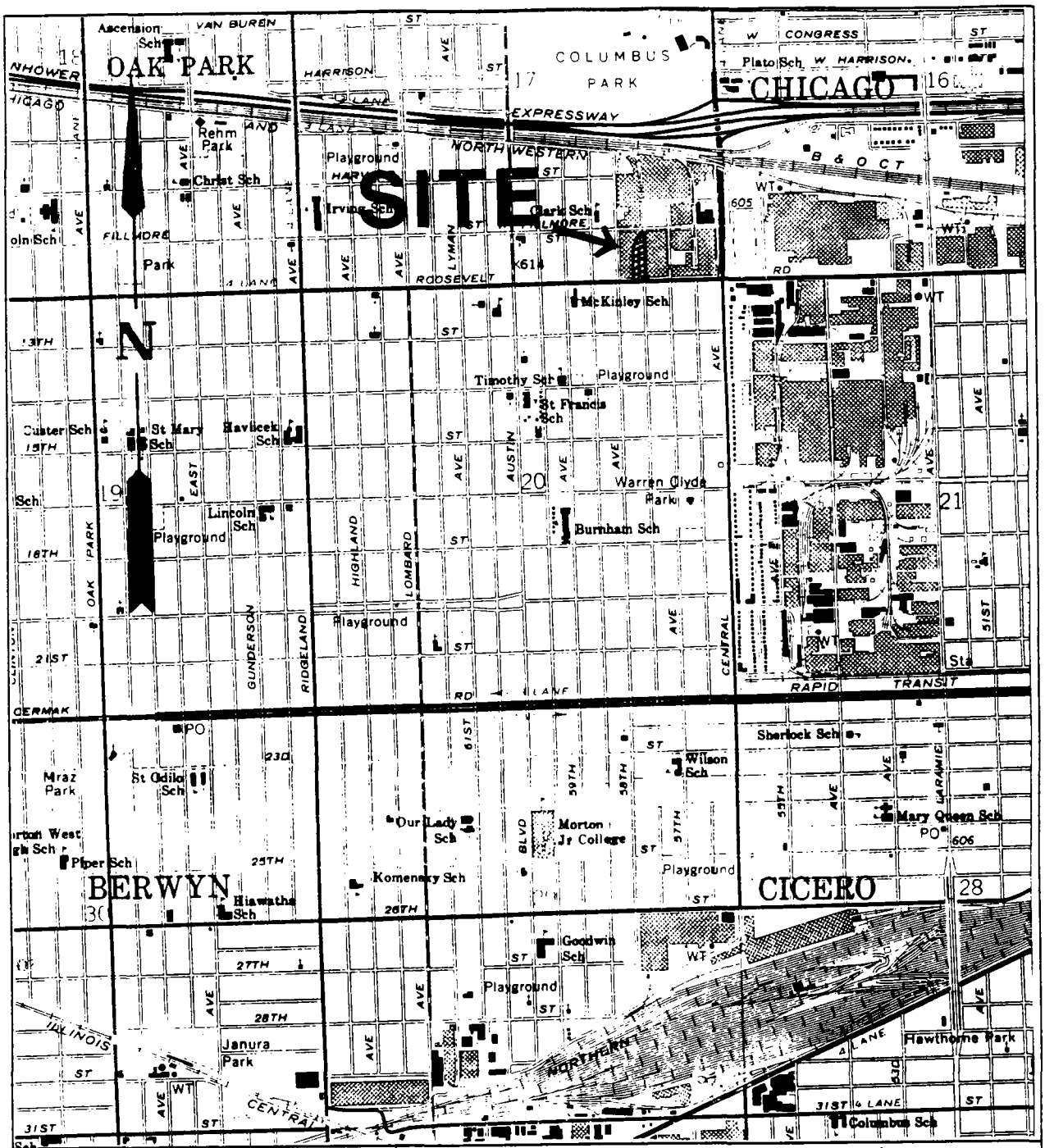
2.1 SITE DESCRIPTION

The WRD site consists of an abandoned warehouse located at 5728 West Roosevelt Road in an industrial area of Chicago, Cook County, Illinois (Figure 2-1). The site topography is flat and the surrounding area is industrial, commercial, and residential. The two-story brick building is bordered by commercial properties on the west, north, and east. A residential neighborhood is located south of the site, directly across Roosevelt Road.

2.2 SITE HISTORY

The results of a January 12, 1993, Chicago Title Insurance Company (CTIC) title search, obtained from information from the Chicago Department of the Environment (CDOE) files, indicated industrial activity at the site as early as 1916. The CDOE representative stated that the site is a former grainery. According to the CTIC title search, the most recent property ownership information named Skokie Trust & Savings Bank as Trustee under trust agreement as of June 25, 1985. Furthermore, the CTIC title search identified Mohammed Farhat Gheith as a possible beneficiary of the land trust holding title to the estate as of July 3, 1985. Cole Taylor Bank is currently the successor trustee to Skokie Trust & Savings Bank.

According to a Chicago Department of Planning and Development Memorandum, Genda, Inc., submitted a tax reactivation application for redevelopment of the property in 1991. In August of 1992, John Crededio, a local property developer, expressed interest in the property should Genda, Inc., withdraw their application. Crededio made his interest official in February 1994, on behalf of the West Roosevelt Road Corporation (WRRC). Genda, Inc., withdrew their application in May 1994, and the Chicago City Council approved WRRC as the new applicant for tax reactivation in September 1994. WRRC was granted receivership and planned to raze the existing structure and install a parking and storage facility for a nearby movie studio. WRRC designated $50,000 for



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Technical Assistance Team
Region V
111 West Jackson Blvd
Chicago, IL 60604

TITLE	SITE LOCATION MAP	FIGURE #	2-1
SITE	WEST ROOSEVELT DRUM SITE	SCALE	1" = 2000'
CITY	CHICAGO	STATE: IL	PAN: EIL0856SAA

MAP SOURCE
USGS MAP, 7.5 MINUTE SERIES
BERWYN, ILL QUADRANGLE

environmental testing and remediation for this effort.

On October 21, 1994, Crededio filed a report with the Illinois Emergency Management Association (IEMA) regarding unsafe conditions at the site. A board-up company had been retained by WRRC to secure the site. According to the incident report, the board-up "crew was overcome with an acid smell/eye irritant chemical spill from a 55-gallon drum" overturned apparently sometime the previous evening. Crededio stated the chemical odor could be identified up to 1½ blocks from the site. The report also stated that a Chicago City Police officer, Chris Pataglia, 15th District, discovered that Mike Ghgieith *(sic)* previously owned the property and used it to house hazardous wastes.

On October 24, 1994, the Illinois Environmental Protection Agency (IEPA) was notified of conditions at the site and immediately conducted an inspection of the premises. The leaking drum was labeled thioglycolic acid (a.k.a. mercaptoacetic acid). Thioglycolic acid has a strong irritating odor, is a skin irritant, and is typically classified as a corrosive material. The IEPA measured the pH of the supposed thioglycolic acid and reported a level of 0.0 standard units. IEPA subsequently contracted Riedel Environmental Services (RES) to immediately mobilize to the site to address the leaking drum. RES arrived at the site later that day and overpacked the leaking drum as well as contaminated debris found in the spill area.

The WRD site was designated a 1995 Brownfields Fund Candidate for remediation with the intent to reactivate the property for future commercial use. On January 6, 1995, the CDOE requested assistance from U.S. EPA in evaluation of threat(s) to public health and/or the environment posed by the WRD site.

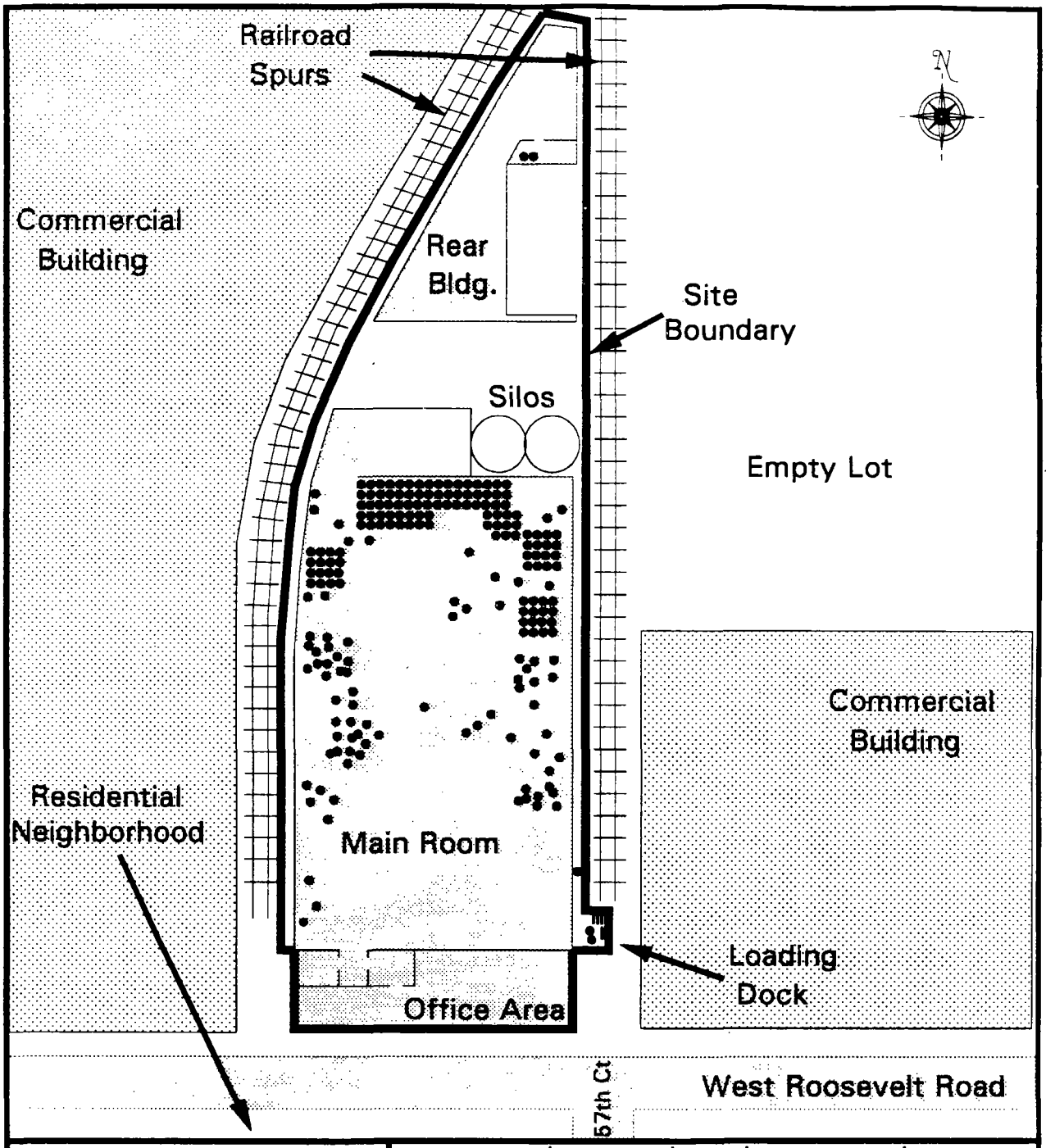
3. SITE ASSESSMENT

On January 27, 1995, U.S. EPA OSC Charlie Gebien and E & E TAT members Todd Ramaly and Steve Skare, conducted a site inspection of the WRD site. An on-site reconnaissance was conducted to document site conditions.

3.1 SITE RECONNAISSANCE

During the site reconnaissance, the TAT observed and documented site conditions. Initially, the TAT entered the building to evaluate ambient breathing conditions and overall safety of the structure. The building was determined safe for continued operations although deterioration was evident. The building was not secured as windows and doors were broken open or removed. Sections of the roof were missing and ceiling material had fallen in several places. An estimated 270 to 300 drums and containers were documented strewn about the main room of the first floor (Figure 3-1). The second floor was largely empty, containing only a few drums. No deviations from background conditions were noted on instruments measuring organic vapor, oxygen level, lower explosive limit, and radiation.

The TAT reported observations to the OSC and reentered the building for an extensive inventory of the drums. Many drums were in poor condition, leaking or bulging in some cases. A wide assortment of drum labels were observed, including cosmetic and food industry products or intermediates. Labels identifying insecticides, surfacants, corrosives, and flammable material were also documented. The TAT noted several product or chemical names from the labels on some of the drums including aluminum chloride, triethanolamine 99%, ethyl phthalate, diethylene glycol, and propylene glycol.



LEGEND

Drums/Containers

Compressed Gas Cylinders

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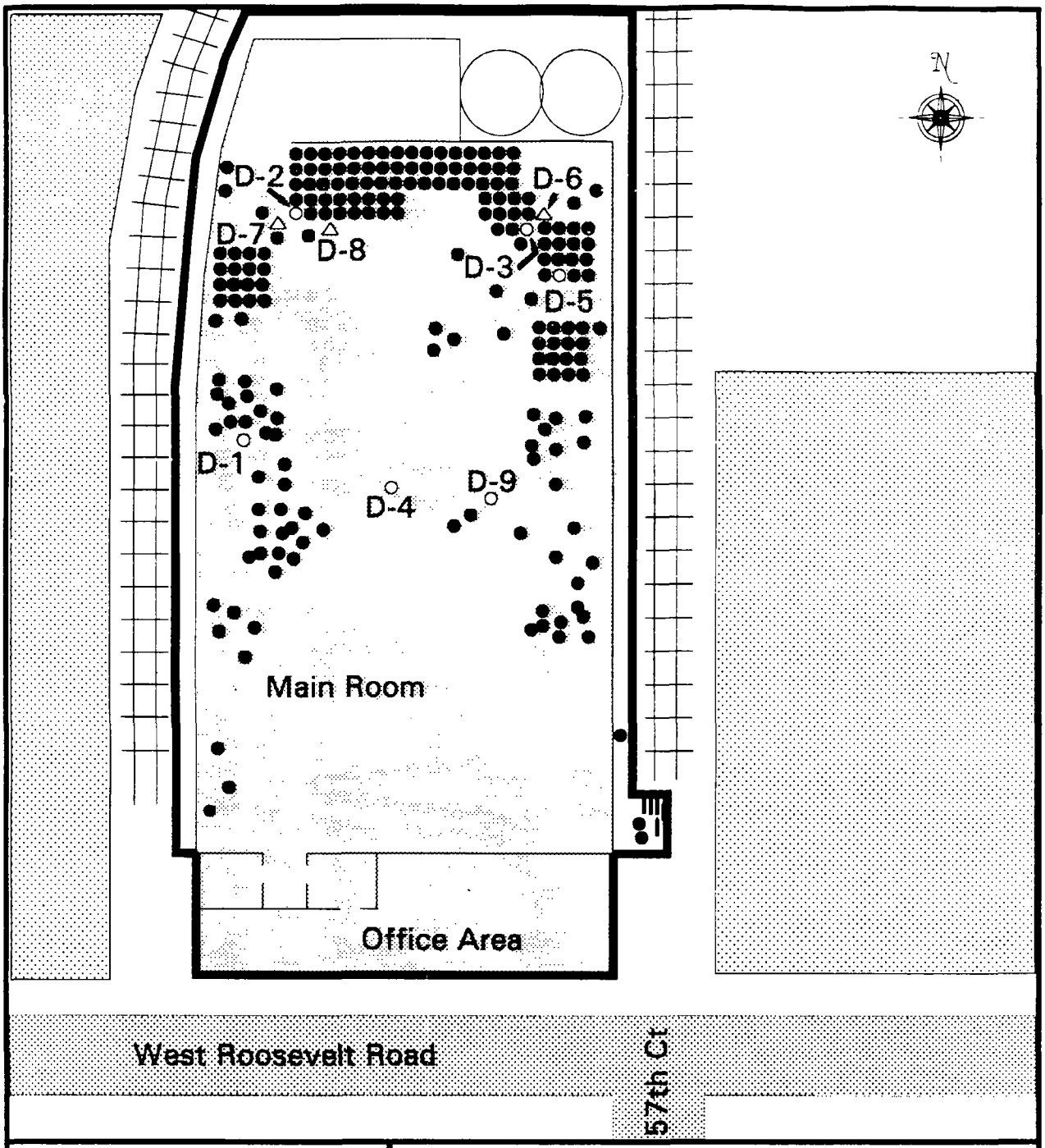
Chicago, IL 60604

TITLE: SITE FEATURES MAP	FIGURE #: 3-1
SITE: WEST ROOSEVELT DRUM SITE	SCALE: not to scale
CITY: CHICAGO STATE: IL	PAN: EIL0856SAA
SOURCE: ECOLOGY & ENVIRONMENT, INC.	DATE: 2/7/95

3.2 SITE SAMPLING

The TAT reported findings to the OSC and proposed a number of the drums for sampling. The TAT reentered the building and collected eight samples (Figure 3-2). Sample D-1 was collected from a drum bearing a corrosive United States Department of Transportation (DOT) label located along the west wall of the main room. Sample D-2 was collected from a drum bearing a corrosive DOT label located in the northwest corner of the main room, near the stairs leading to the second story. Sample D-3 was collected from a drum labeled "corrosive, hypochlorite", located in the northeast corner of the main room. Sample D-4 was collected from a drum that was laying on its side in the center of the main room. The drum was labeled "caution, containers hazardous when empty." Sample D-5 was collected from a drum labeled "surfactant", located along the east wall of the main room. The drum contents had apparently exuded around the edge of the drum lid and crystallized. Sample D-6 was collected from a pile of white flakes which had spilled from a fiber drum in the northeast corner of the main room, near sample D-3. Sample D-7 was collected in the northwest corner of the main room from a hard, white crystalline solid, found on the floor near the sample D-2 location. Sample D-8 was collected from a spill of a viscous orange-brown sludge near the sample D-7 location. Sample D-9 was additional sample volume remaining from an October 1994, CDOE sample of the leaking drum labeled "thioglycolic acid", given to the TAT by CDOE representatives.

The samples were taken to a nearby U.S. EPA removal action site for hazard categorization in their field laboratory. Based on screening tests, samples D-1, D-3, D-5, and D-9 were considered corrosive, and sample D-4 was considered flammable. These samples were later delivered to Gabriel Environmental Services, Chicago, Illinois, for confirmatory analysis.



LEGEND

○ DRUM SAMPLE

△ SPILL SAMPLE

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Region V
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Chicago, IL 60604

TITLE: SAMPLE LOCATION MAP	FIGURE #: 3-2
SITE: WEST ROOSEVELT DRUM SITE	SCALE: not to scale
CITY: CHICAGO STATE: IL	PAN: EIL0856SAA
SOURCE: ECOLOGY & ENVIRONMENT, INC.	DATE: 2/7/95

4. ANALYTICAL RESULTS

Analytical results of samples collected from the site indicate that elevated levels of hazardous materials exist within the on-site drums and containers. Samples D-1, D-3, D-5, and D-9 were analyzed for pH. Sample D-4 was analyzed for flash point. The results of all analysis can be summarized as follows:

- D-1 (drum labeled: corrosive) pH = 14.1 standard units
- D-3 (drum labeled: corrosive, hypochlorite) pH = 12.5 standard units
- D-4 (drum labeled: caution-container hazardous when empty) flash point = 52° F
- D-5 (drum labeled: surfactant) pH = 12.7 standard units
- D-9 (CDOE sample from drum labeled: thioglycolic acid) pH = 1.3 standard units

These results were obtained within the requested three working-day turnaround time under analytical TDD Number T05-9501-806. The complete analytical package is included as Appendix B.

5. DISCUSSION OF POTENTIAL THREATS

Conditions observed during the U.S. EPA investigation of the WRD site that constitute a threat and may be used to determine the appropriateness of a removal action as outlined in Section 300.415(b)(2) of the NCP include:

- **Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants:**

Site access to trespassers, vandals, and wildlife is unrestricted. Unsecured and deteriorating containers of hazardous substances pose a threat of direct contact. Specifically, labels of the following substances were observed at the site in unsecured containers:

Aluminum chloride: one form of aluminum chloride will react violently with water and generate hydrogen chloride gas. Contact with metal and water may release hydrogen gas, presenting a possible fire hazard. Pure product classified as a corrosive.

Thioglycolic acid: skin irritant with strong irritating odor. Sample D-9 of this material was found to be a Resource Conservation and Recovery Act (RCRA) hazardous waste with the characteristic of corrosivity (D001) with a pH of less than 2.0 standard units.

Triethanolamine 99%: combustible liquid, skin irritant, and possible carcinogen.

Ethyl phthalate: poisonous and corrosive liquid, found to be a RCRA hazardous waste by toxicity (U088).

Diethylene glycol: poisonous and combustible liquid used as an antifreeze.

In addition, the contents of several of the sampled unlabeled drums were determined to be RCRA hazardous wastes. Samples D-1, D-3, and D-5 had pH measurements greater than 12.5 standard units (D002 corrosivity) and sample D-4 had a flash point of less than 140°F (D001 ignitability).

The site is not secured against trespassers and vandals and a previous release of hazardous material caused a strong odor detectable up to 1½ blocks from the site. During the site assessment, moderate automobile and pedestrian traffic was observed on West Roosevelt Road, immediately south of the building.

- **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.**

Many of the containers of proven or potentially hazardous materials were in poor condition, leaking, or stacked in an unsafe manner. Long-term storage of these materials at the site could result in a release.

- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.**

The ceiling and roof were destroyed in some areas of the building and many windows and doors were removed. Freezing temperatures and precipitation may cause drums to rupture or leak. In addition, the drums labeled "aluminum chloride" may contain water-reactive material that could release dangerous gas upon contact with water.

- **Threat of fire or explosion.**

Flammable and combustible materials were found at the site, as well as reactive material that can react with water violently and exothermically.

6. REMOVAL COST EVALUATION

The removal action at the WRD site is estimated to cost approximately $611,129 and is expected to require 60 days, including forty 11-hour working days and 20 days of down-time. The cost estimates were generated using the U.S. EPA Removal Cost Management System (RCMS) module version 4.0 (Appendix C), using rates for Emergency Response Cleanup Support (ERCS) contractor Riedel Environmental Services, including a government and administration (G & A) multiplier of 4.5%. Also included in the estimate are project contingencies and the TAT and U.S. EPA costs.

The following assumptions have been made in preparing the cost estimate:

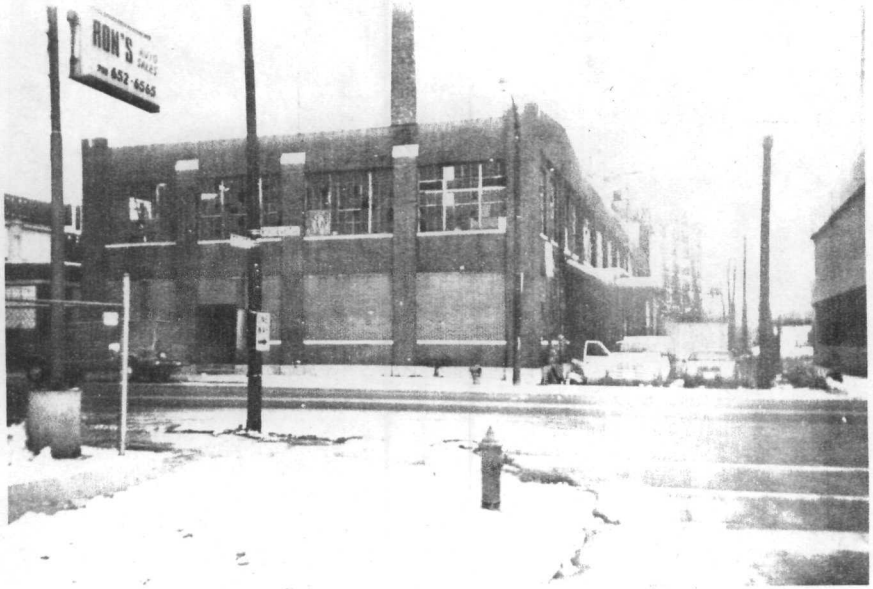
- Removal will be conducted in two phases.
- Phase I will include securing premises, staging and sampling all drummed material, overpacking or repacking leaking drums, drum spill cleanup, and hazard categorization of all samples collected.
- Phase II will be initiated upon completion of transport and disposal arrangements for all wastestreams. Phase II activities will include preparation of drums for shipment, possible consolidation of some or all wastestreams for bulk transport, and shipment of all wastestreams off site for treatment and/or disposal.
- Work is expected to require 60 days, including forty 11-hour working days and 20 days of down-time between work phases.
- Removal of drums and containers will be performed in level B.

A

APPENDIX A

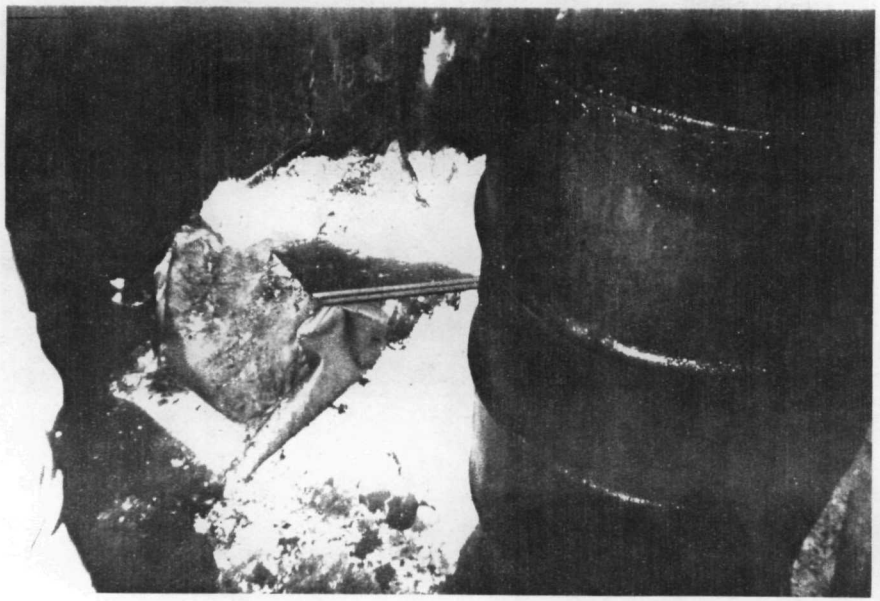
SITE PHOTOGRAPHS

SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Ramaly
DIR: N DATE: 01/27/95 TIME: 0920
DESCR: Drums and compressed gas cylinders at loading dock near southeast corner of site.



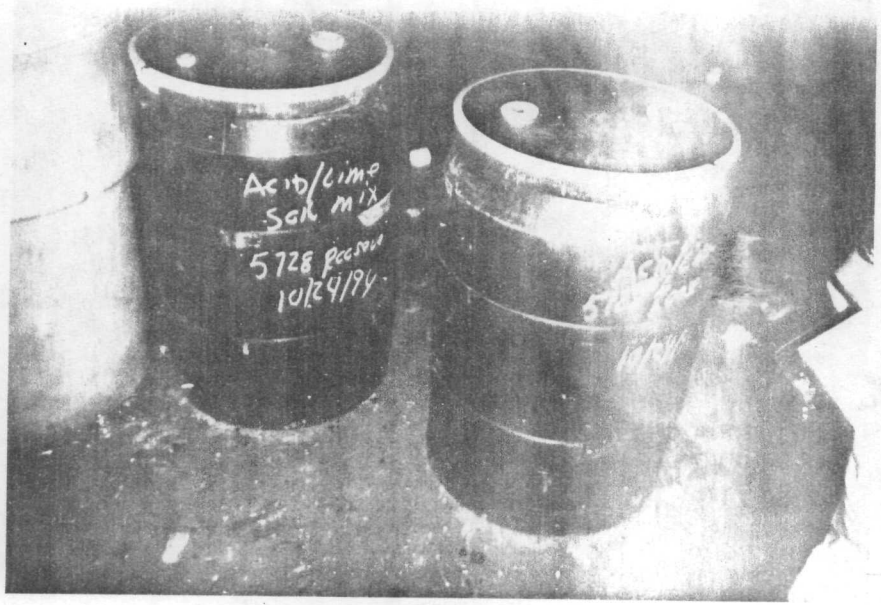
SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Ramaly
DIR: N DATE: 01/27/95 TIME: 0920
DESCR: Front of site, 5728 West Roosevelt.

SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N/A DATE: 01/27/95 TIME: 0946
DESCR: Drum covered with oil on right, and white crystalline solid spilled on floor, main room.



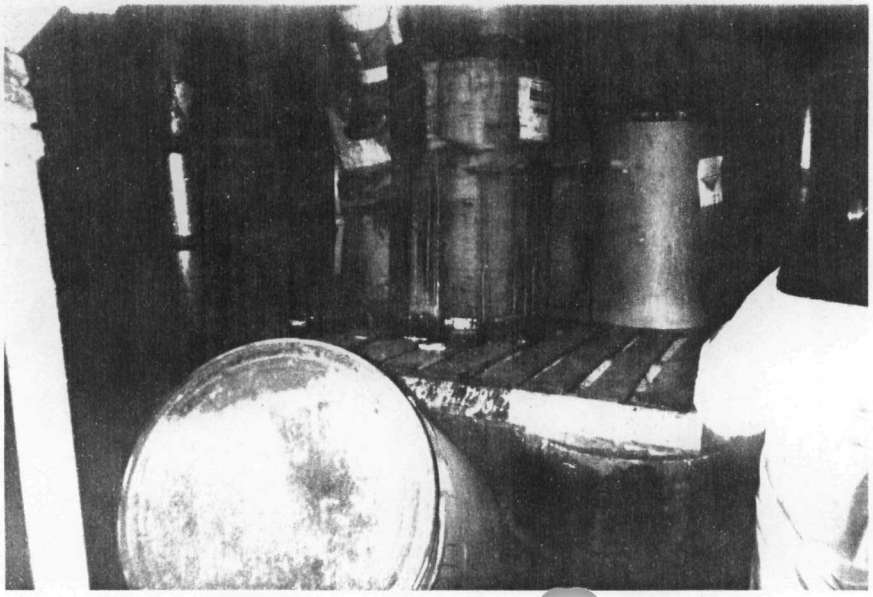
SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N/A DATE: 01/27/95 TIME: 0945
DESCR: Food processing products along west wall of main room.

SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N DATE: 01/27/95 TIME: 1000
DESCR: Drums stacked along north
extention of main room.

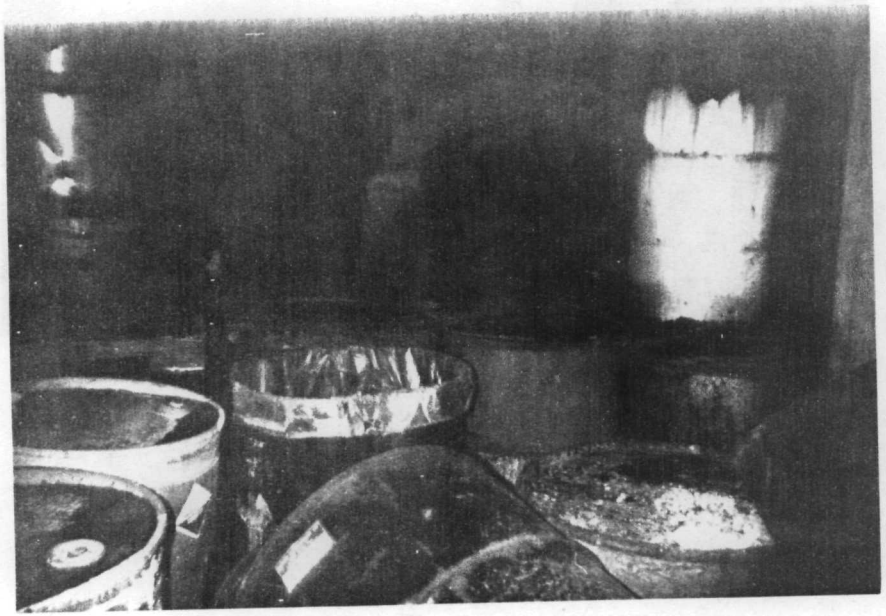


SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: E DATE: 01/27/95 TIME: 0950
DESCR: Overpacked thioglycolic acid
drum by RES. Two drums of
contaminated debris from spill.

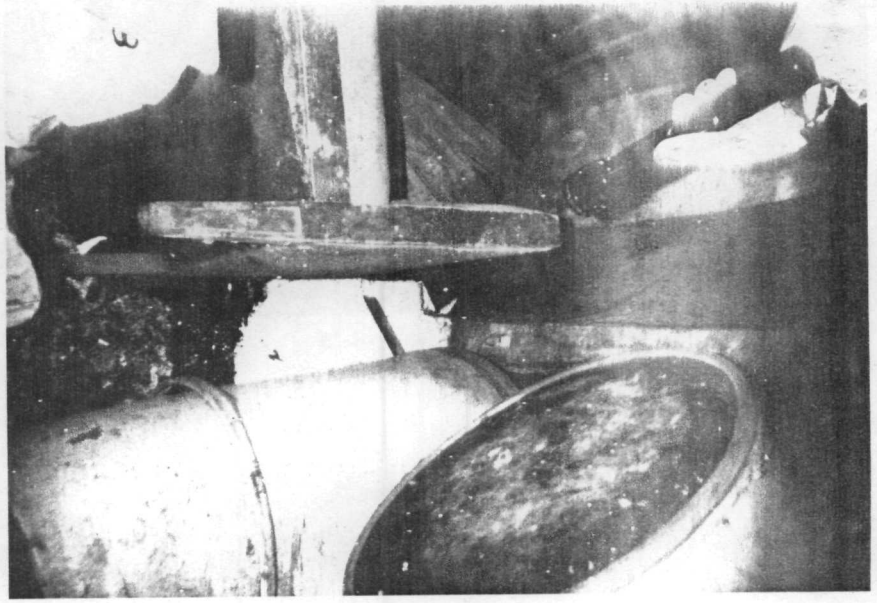
SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N DATE: 01/27/95 TIME: 1005
DESCR: Drums stacked along north wall of main room, NE corner. Note leaks and `corrosive' label.



SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N/A DATE: 01/27/95 TIME: 1000
DESCR: Drum labeled corrosive w/inorganic salt exuding at bung, NW corner main room, sample D-2.

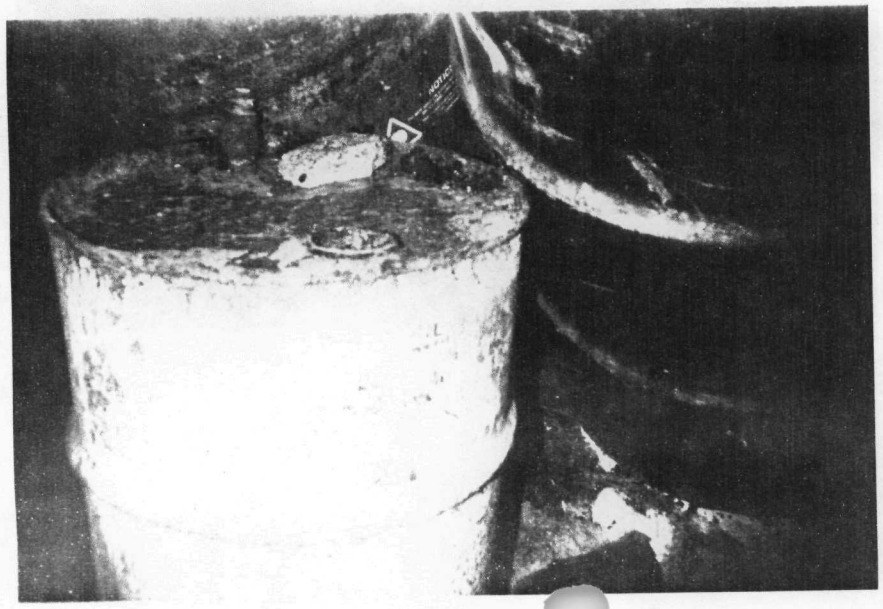


SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N DATE: 01/27/95 TIME: 1010
DESCR: Drums, some labeled `corrosive'
near NE corner of main room.
Sample D-3 from blue/yellow drum

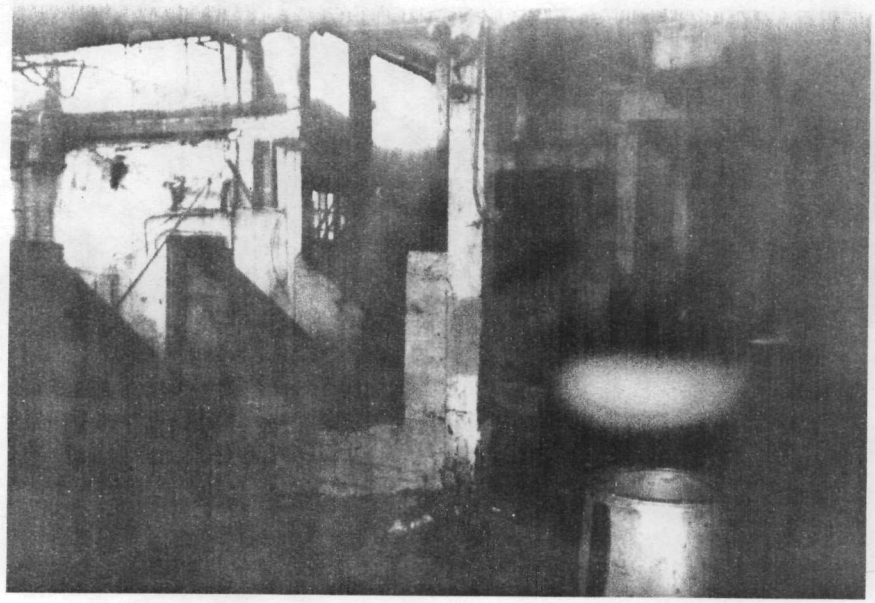


SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N/A DATE: 01/27/95 TIME: 1006
DESCR: Spilled white flakes near NE
corner of main room. Sample D-6
collected of white flakes.

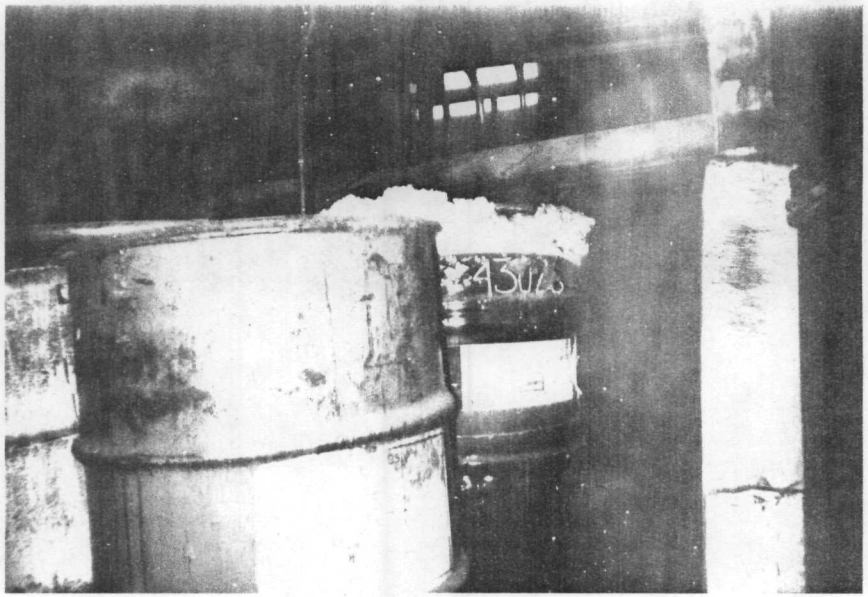
SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: S DATE: 01/27/95 TIME: 1020
DESCR: Drum labled `Fly/Roach Spray
HY-KIL' contains pyrethrins;
insecticide/repellant, main room



SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N/A DATE: 01/27/95 TIME: 1015
DESCR: Sample D-3 location, northeast
corner, main room.

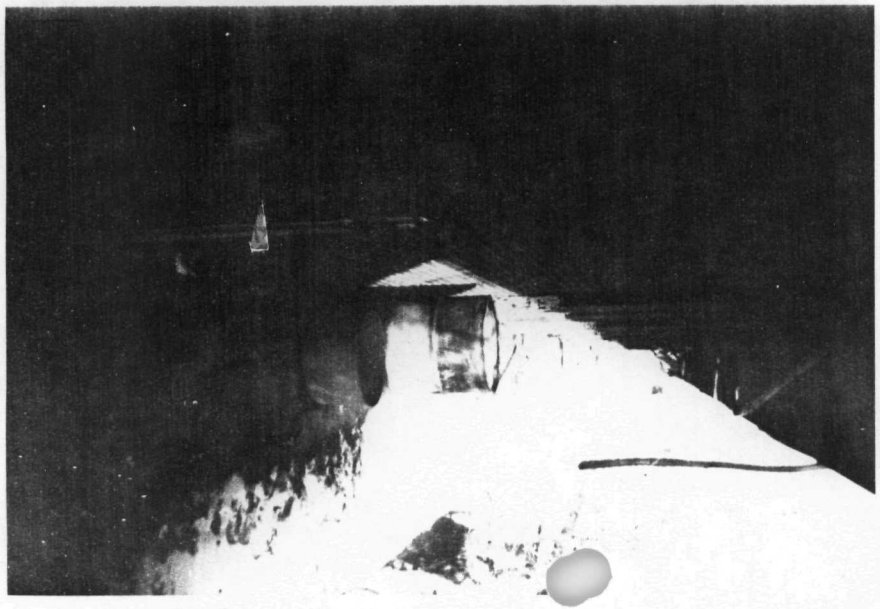


SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: N DATE: 01/27/95 TIME: 104
DESCR: Previous location of a vessel located along west wall of main room.



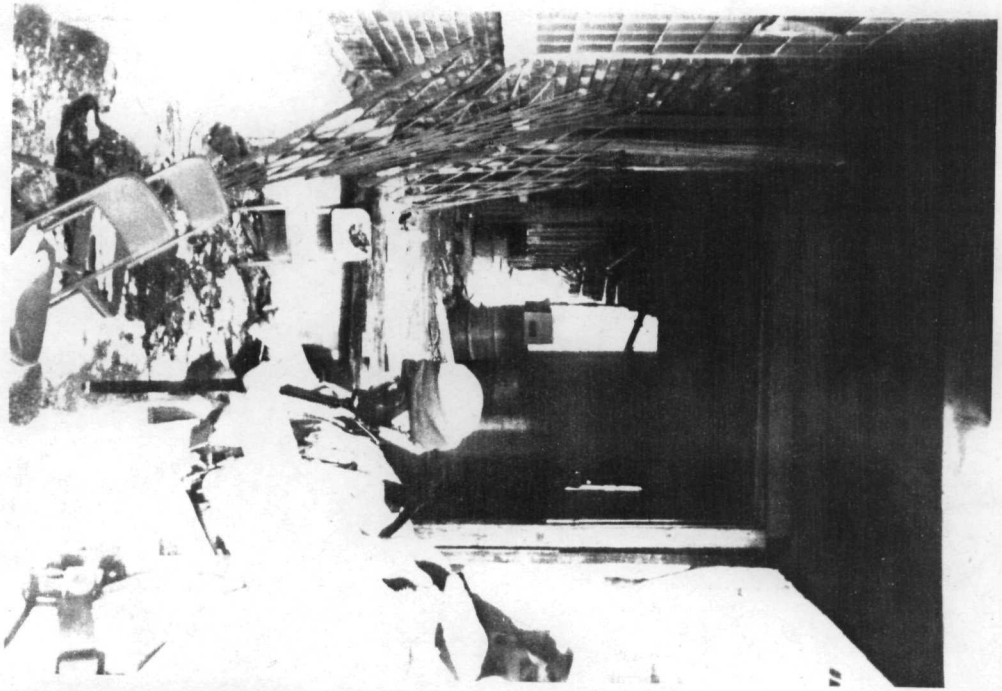
SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: E DATE: 01/27/95 TIME: 1030
DESCR: Drum on right (black w/crystal) sampled as D-5; in center of main room.

SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Gebien
DIR: N DATE: 01/27/95 TIME: 1132
DESCR: East side of building, w/drums.

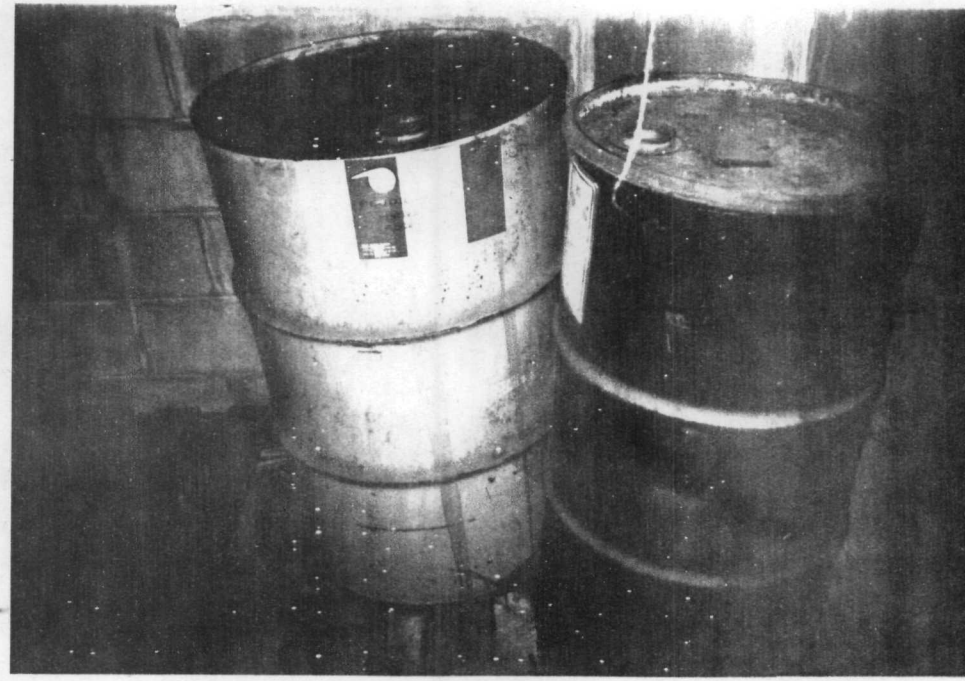


SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Gebien
DIR: E DATE: 01/27/95 TIME: 1130
DESCR: Drums and compressed gas
cylinders on loading dock.

SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Gebien
DIR: N DATE: 01/27/95 TIME: 1130
DESCR: TATs prepare for sampling in level B.



SITE: WEST ROOSEVELT DRUM SITE
TDD#: T05-9501-006 PHOTOGRAPHER: Skare
DIR: S DATE: 01/27/95 TIME: 1136
DESCR: Two drums in the otherwise empty rear building.



APPENDIX B

ANALYTICAL DATA PACKAGE

ecology and environment, inc.
International Specialists in the Environment

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Chicago, Illinois 60604
Tel: (312) 663-9415, Fax: (312) 663-0791

M E M O R A N D U M

DATE: February 16, 1995

TO: Todd Ramaly, TAT Project Manager, E & E, Chicago, IL

FROM: David Hendren, TAT Analytical Services Manager, E & E, Chicago, IL

THROUGH: Mary Jane Ripp, QA Manager, E & E, Chicago, IL

SUBJECT: pH and Flashpoint Data Quality Review
West Roosevelt Drum site, Chicago, Cook County, IL

REFERENCE: Project TDD T05-9501-006 Analytical TDD T05-9501-806
Project PAN EIL0856SAA Analytical PAN EIL0856AAA

The data quality assurance (QA) review of five samples collected from the West Roosevelt Drum site is complete. The samples were collected on January 27, 1994, by the Technical Assistance Team (TAT) contractor, Ecology and Environment, Inc. (E & E). The samples were submitted to Gabriel Environmental Services, Chicago, Illinois.

Sample Identification

E & E Identification No.	Laboratory Identification No.
D-1	C501357-01A
D-3	C501357-02A
D-4	C501357-03A
D-5	C501357-04A
D-9	C501357-05A

Data Qualifications

I. Sample Holding Time: Acceptable

The samples were collected on January 27, 1995, and analyzed on January 27, 1995. There are no specific

holding times for these parameters.

II. Overall Assessment of Data For Use: Acceptable

The overall usefulness of the data is based on criteria for QA Level II outlined in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April, 1990) Data Validation Procedures, Section 9.2. OSWER does not require specific quality control criteria. Based upon the information provided, the data are acceptable for use.

gabriel
environmental services

Ecology & Environment Inc.

Gabriel Log No.: C501357-01A	**Sample Matrix:** CORROSIVE
Sample ID: D-1 WEST SIDE - MAIN ROOM	**Date Received:** 01/27/95
Date Collected: 01/27/95	**Collected By:** CLIENT PERSONNEL

Test Description	Result
pH - Electrode Method	14.1 pH Units

Gabriel Log No.: C501357-02A	**Sample Matrix:** CORROSIVE
Sample ID: D-3 HYROCHLOR NE MAIN ROOM	**Date Received:** 01/27/95
Date Collected: 01/27/95	**Collected By:** CLIENT PERSONNEL

Test Description	Result
pH - Electrode Method	12.5 pH Units

Gabriel Log No.: C501357-03A	**Sample Matrix:** HAZARD
Sample ID: D-4 MIDDLE OF MAIN ROOM	**Date Received:** 01/27/95
Date Collected: 01/27/95	**Collected By:** CLIENT PERSONNEL

Test Description	Result
Flash Point - Closed Cup	52 °F

All units are expressed in mg/L for liquids and mg/Kg for solids except as noted.

Data Release Authorized By: Danuta Panek Date: 1/30/95
Danuta Panek, Inorganic Group Manager

gabriel
environmental services

Gabriel Log No.: C501357-04A	**Sample Matrix:** SURFACTANT
Sample ID: D-5 EAST SIDE OF MAIN ROOM	**Date Received:** 01/27/95
Date Collected: 01/27/95	**Collected By:** CLIENT PERSONNEL

Test Description	Result
pH - 10% Solution	12.7 pH Units

Gabriel Log No.: C501357-05A	**Sample Matrix:** WATER
Sample ID: D-9 STATE/CITY	**Date Received:** 01/27/95
Date Collected: 01/27/95	**Collected By:** CLIENT PERSONNEL

Test Description	Result
pH - Electrode Method	1.3 pH Units

All units are expressed in mg/L for liquids and mg/Kg for solids except as noted.

Data Release Authorized By: Danuta Panek Date: 1/30/95
Danuta Panek, Inorganic Group Manager

APPENDIX C

RCMS COST ESTIMATE

(PORTIONS REDACTED - NOT RELEVANT TO SELECTION OF THE REMOVAL ACTION)

APPENDIX C

RCMS COST ESTIMATE

Initial Cost Projection Scenario: WEST ROOSEVELT DRUM

Projection ID Number: WRD Date: 02/07/95

Cleanup Contractor: RES5 - Riedel Environmental TAT Contractor: E&E

Cost Projection Summary

Contractor Personnel	159,368.70
Contractor Equipment	35,227.85
Unit Rate Materials	37,547.69
At Cost Materials	1,463.00
Subcontractors	25,919.66
Waste Transportation	12,540.00
Waste Disposal	85,899.00
Cleanup Contractor Subtotal	357,965.90
Federal and State Agencies	0.00
Extramural Subtotal	357,965.90
20 % Extramural Contingency	71,593.18
Extramural Subtotal	429,559.08
TAT Personnel	37,681.50
TAT Special Projects	0.00
TAT Analytical Services	0.00
Total TAT Costs	37,681.50
Other Cost Items	0.00
Extramural Subtotal	467,240.58
20 % Project Contingency	93,448.12
Total Extramural Cost	560,688.70
EPA Regional Personnel	15,600.00
EPA Non-Regional Personnel	0.00
EPA Headquarters Direct	1,560.00
(10 % of Regional Hours)	
EPA Indirect	33,280.00
EPA Total	50,440.00
Project Total	611,128.70